United States Department of Agriculture

NRCS

Natural Resources Conservation Service
National Water and Climate Center
101 SW Main Street, Suite 1600
Portland, OR 97204-3224

Date: **February 11, 2003**

Subject: **February 1, 2003 Western Snowpack Conditions and Water Supply Forecasts**

The following information is provided for your use in describing climate and water supply conditions in the West as of February 1, 2003.

OVERVIEW

As of February 1, 2003, nearly every western state is forecast to receive below average spring runoff from a meager February snowpack. The only exceptions are in basins in central and northern California and the Pecos in New Mexico, which are forecast to receive near average, or above average spring streamflows. Significant portions of northern Nevada, eastern Oregon, western Utah and eastern Wyoming are forecast to receive less than 50% of average streamflow (Figure 4).

Below average water supply forecasts come on the heels last year's record low, or near record low runoff in the Southwest, Intermountain West and southern Rockies. In many of these areas, this year's low snowpack is resting on very dry soils, which generally translates into reduced snowmelt runoff. Additionally, the reservoir storage for nearly all western states is running well below their February averages.

SNOWPACK

The February 1, 2003 Mountain Snowpack map (Figure 1) reflects the below average snowpacks that continue to be a concern westwide. Extremely low snowpacks (<50% of average) are reported in western and parts of eastern Oregon, northern Idaho, central Nevada, southwestern Utah and most of Arizona report. The entire Pacific Northwest reports below average snowpacks ranging from 50% to 89% of average. Below average snowpacks also predominate from the northern Rockies to New Mexico and throughout the Intermountain West. The only basins reporting near, or slightly above average snowpacks are located in central and northern California.

Most Alaska snowpacks are significantly below, to below average (<50% to 89%). Alaska has experienced warm temperatures this winter, which have inhibited snowpack accumulation.

A map containing a daily update of the westwide snowpack may be obtained from the following URL - http://www.wcc.nrcs.usda.gov/water/w_qnty.html

SEASONAL AND MONTHLY PRECIPITATION

Seasonal precipitation, October 1, 2001 to January 31, 2001, reflects a similar pattern to the snowpack westwide (Figure 2). The Rockies, from Canada to the Southwest, as well as the Intermountain West report well below, to below average precipitation (50% to 89%).

Significantly below average precipitation (<50%) is shown in parts of eastern Montana and southern Arizona.

In contrast to the dearth of precipitation throughout most of the West, southwest Oregon, a small portion of central Washington, and central and northern California report above, to significantly above seasonal precipitation totals (110% to >150%). Alaska's seasonal precipitation is generally below average with the interior reporting well below average values. In contrast, south coastal areas are well above average while the interior is significantly below average.

January precipitation was a non-event for the southern half of the West (Figure 3). The majority of the seven southern states reported less than 50% of average precipitation. The situation improved as one moved north, with above, to well above average totals reported in central Washington, northeastern Oregon and central Idaho. It should be noted that much of this precipitation fell as rain, not snow, due to the extraordinarily warm January throughout much of the West.

SPRING AND SUMMER STREAMFLOW FORECASTS

The February 1, 2003 water supply forecasts (Figure 4) paints a bleak picture, ranging from significantly below, to below average streamflow (<50% to 89%) over most of the West. Only basins in central and northwestern California, the Walker Basins of Nevada and the Upper Pecos in New Mexico are forecast to receive average, to above average (90% to 129%) spring streamflow. These low water supply forecasts follow water year 2002's extremely low runoff for many Southwestern and Rocky Mountain basins. Alaska water supply forecasts are not issued until April. Specific state streamflow summaries can be obtained from the Internet location - http://www.wcc.nrcs.usda.gov/water/snow/bor.pl

RESERVOIR STORAGE

As of February 1, 2003, the total storage for all major western storage reservoirs in each state is below seasonal averages (Figure 5). This reflects the carryover dryness of last year's drought in the Rockies and the continued drought resulting from this water year’s seasonal precipitation deficiencies throughout most of the West.

FOR MORE INFORMATION

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit us at http://www.wcc.nrcs.usda.gov

/s/ RON MARLOW
Director, Conservation Engineering Division, Natural Resources Conservation Division, Washington, DC

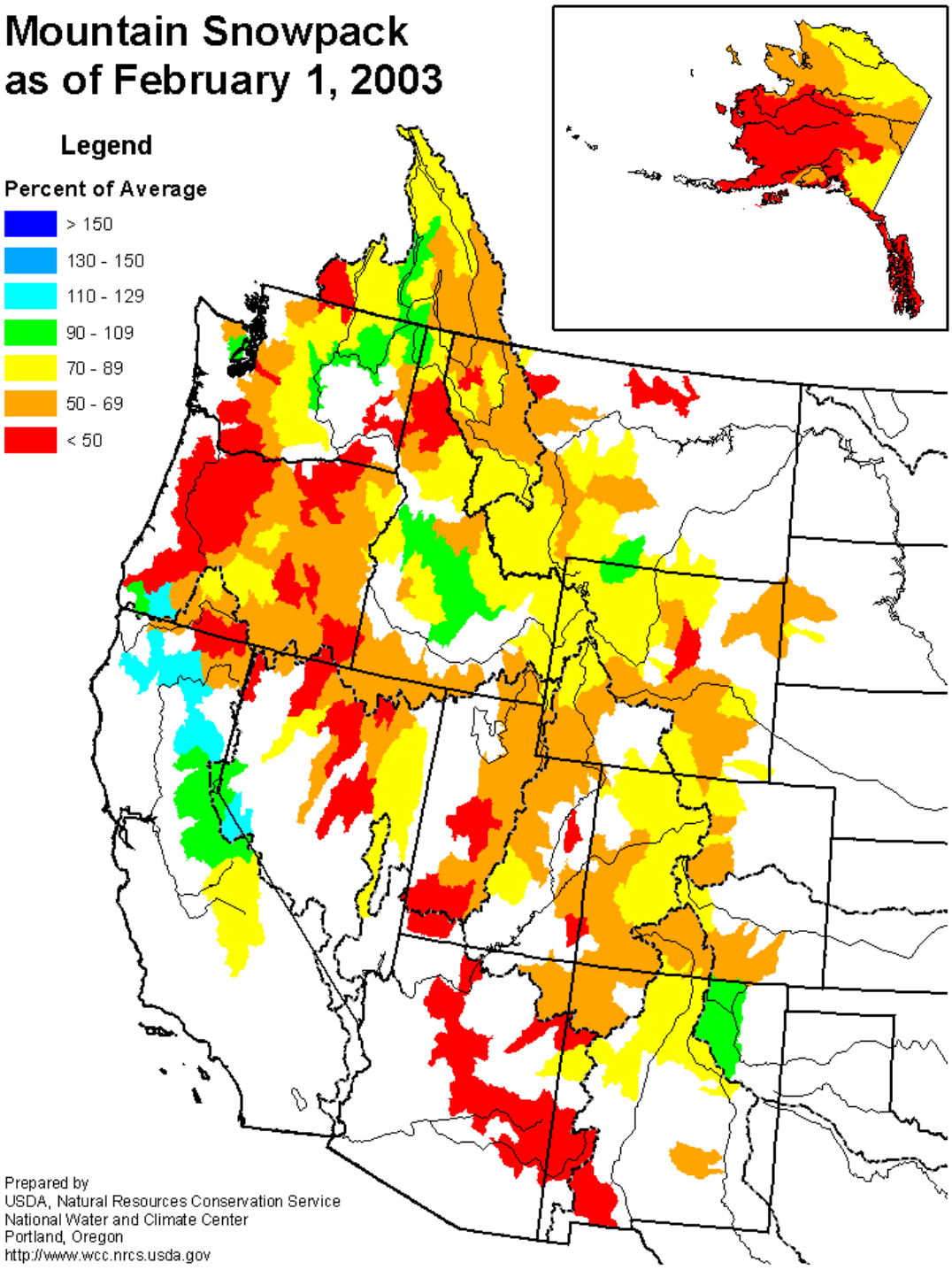


Figure 1. February 1, 2003 Snowpack

\

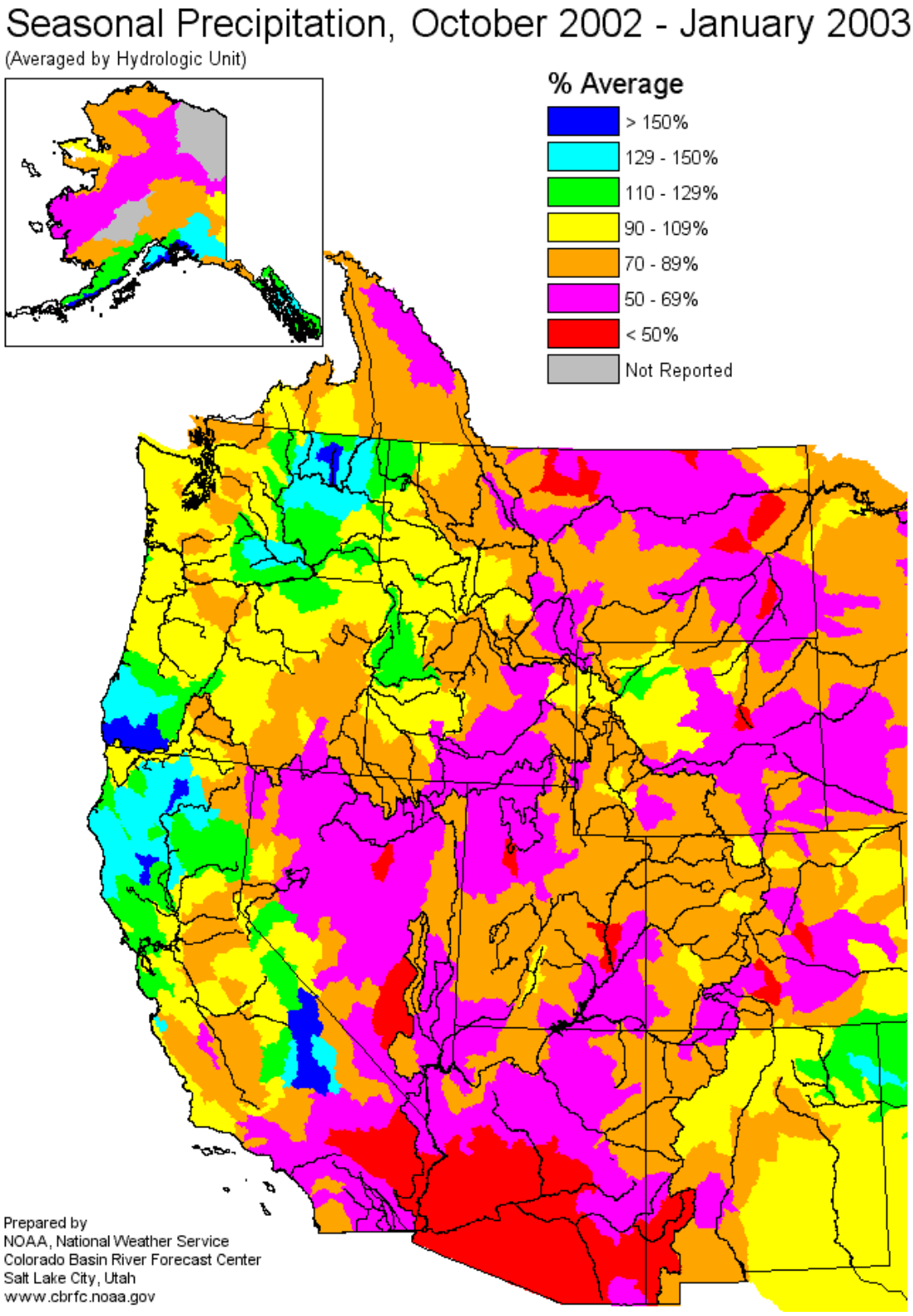


Figure 2. Seasonal Precipitation to Date Starting October 1, 2002

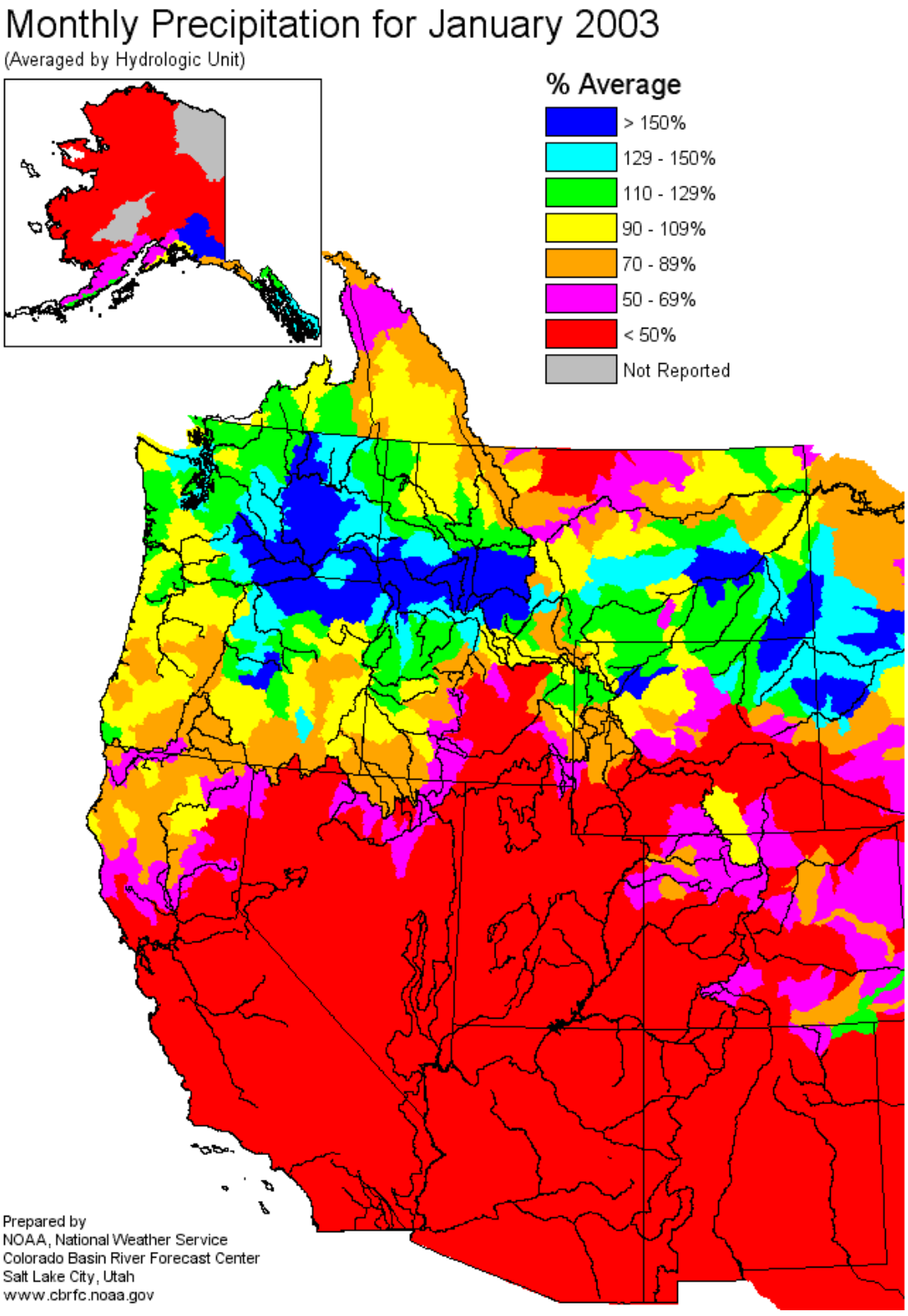


Figure 3. Monthly Precipitation - January 2003

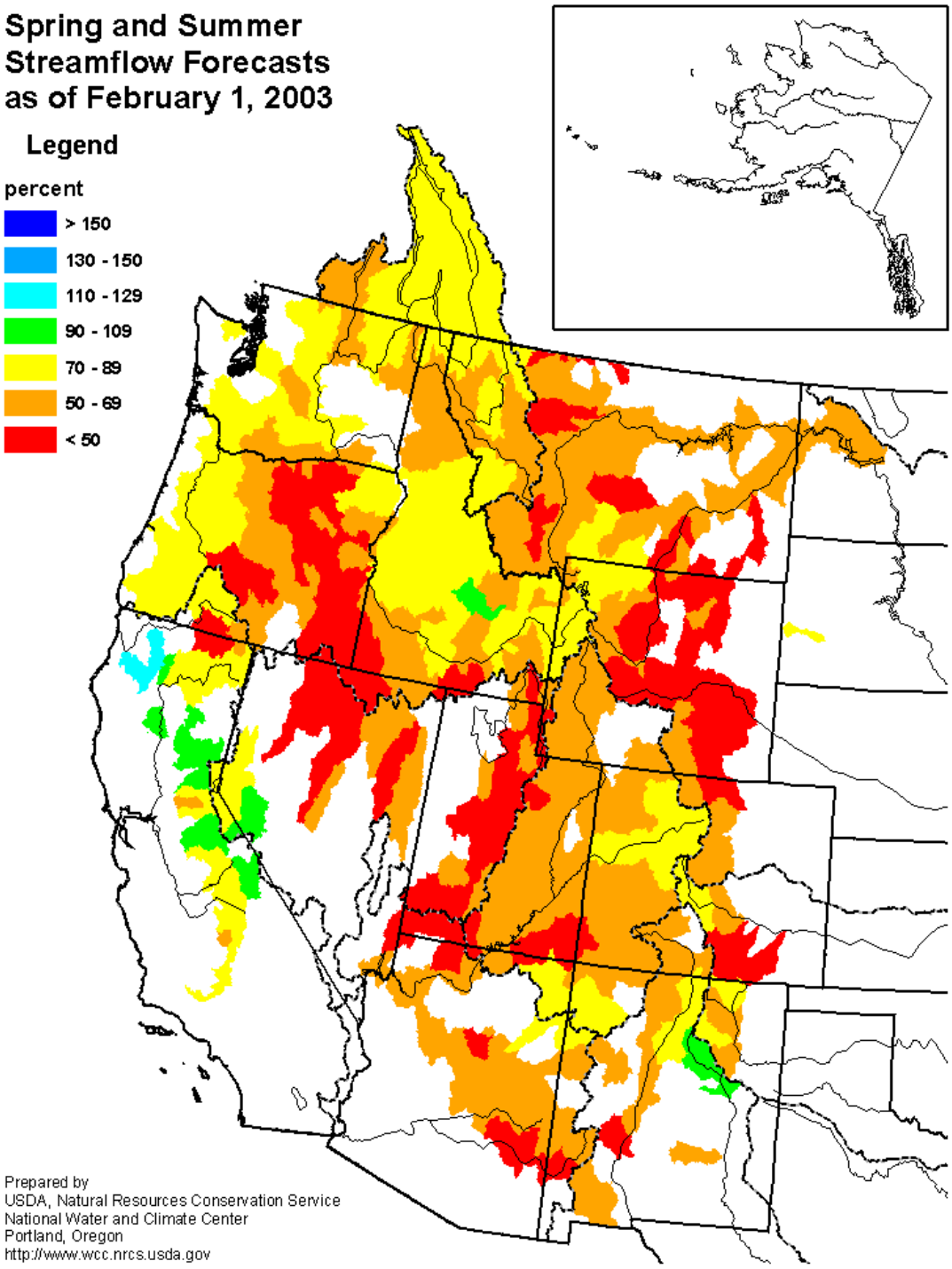
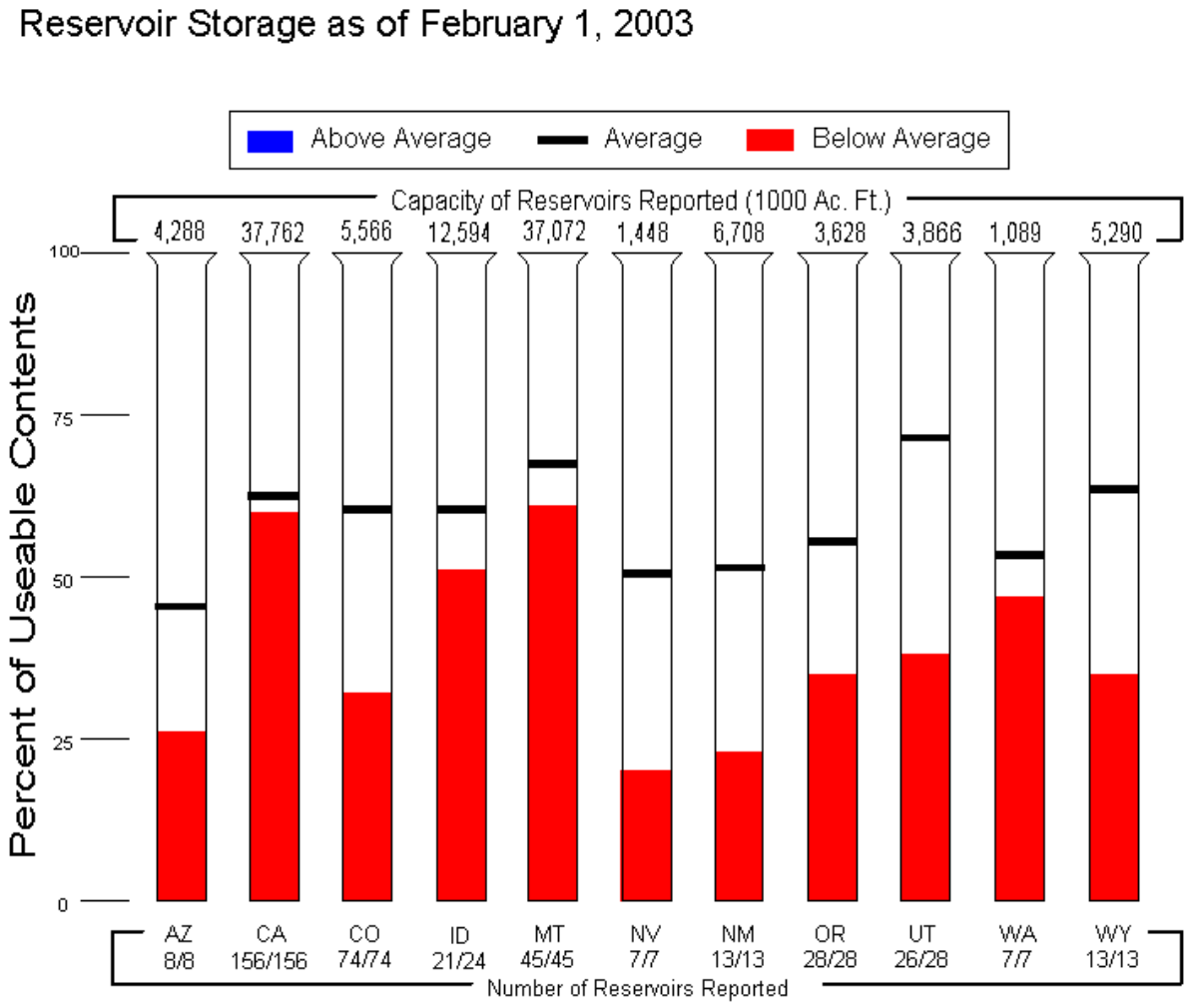


Figure 4. Seasonal Water Supply Forecasts - February 1, 2003



Prepared by: USDA, Natural Resources Conservation Service, National Water and Climate Center, Portland, OR
http://www.wcc.nrcs.usda.gov

Figure 5. Current Reservoir Storage - February 1, 2003